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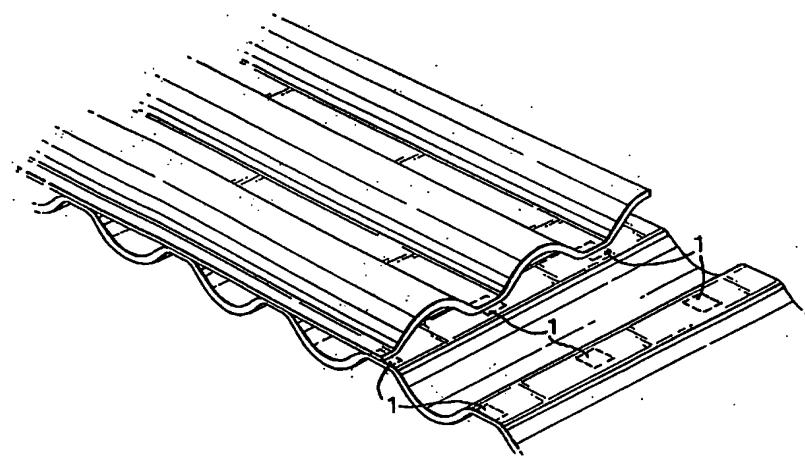
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(54) Title: LAMINATES OF FILMS HAVING IMPROVED RESISTANCE TO BENDING IN ALL DIRECTIONS AND METHODS AND APPARATUS FOR THEIR MANUFACTURE



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(57) Abstract: The present invention relates to a flexible laminate of films of thermoplastic polymer material mainly for applications in which relatively high yield strength and ultimate tensile strength is required, and a method and apparatus for its manufacture. The laminate comprises a monofilm formed or multifilm-formed ply (A) and another monofilm-formed or multifilm formed ply (B) both mainly consisting of orientable thermoplastic polymer material, in which A has a fluted configuration and B on a first side is adhesively bonded in bonding zones to the crests on a first side of A, in which B also has a fluted configuration, the flute direction of B forming an angle from generally about 30° up to and including 90° to the flute direction of A and the said bonding zones being on the crests of the first side of B to produce spot bonding with the crests on the first side of A, the wavelengths of the flutes in A and/or B are no longer than 5 mm, and the wavelengths of the flutes in both A and B are less than 10 mm.